Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Jan. 1939

RECD
LIBRARY
FEB 9 1939
BUREAU
OF
PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

GPO 123668

Not for publication without
prior consent of this division.

REPORT FOR THE MONTH OF JANUARY, 1939.

HAVRE:

Weather conditions during January were typified by unusually mild temperatures and light precipitation. Snow 5 inches in depth on the ground at the beginning of the month, rapidly disappeared under the influence of chinook winds, and after the 4th the ground was practically bare until the light snowfall and subzero temperatures of the last two days. The mean temperature of 28°, a departure of 14° above normal, made this the warmest January since 1934 and the third mildest in station experience. Winter grains had little or no protection, however, minimum readings in general were above 10°. Wind movement was moderate, with the exception of a few hours on the morning of the 23rd, when a dust haze not of local origin was observed.

Station activities were chiefly confined to winter feeding beef cattle. The mature cow herd continued to graze the H-2 native range pasture, feeding being necessary on only three days. WPA continued working in the heavily brushed creek bottom land, the project now in operation being concerned with the conservation of young trees, reserving certain natural belts for stock protection.

Maximum temperature, 47°; minimum, -20°; precipitation, 0.24 inch. Snowfall, 3.4 inches.

JUDITH BASIN:

January had less than one-half the monthly average precipitation. This was received in the form of seven light flurries of snow. Temperatures were very high during the entire month, except on the last day, when the minimum of the winter to date was recorded with a -16°. Wind velocity was also high with a monthly mean of 7.8 miles per hour. Considerable soil moved in the Basin.

Work continued on the completion of annual reports, repairs on tractor, disposal of steers from pasture trials and care of livestock.

Maximum temperature, 56°; minimum, -16°; precipitation, 0.25 inch.

HUNTLEY:

The mild weather which prevailed through December continued to the last day of January. During most of January the ground was free from snow. The few light falls received were melted or blown away within 24 hours. Precipitation was much below the average, amounting to about one-third of the normal for the month. The scarcity of snow cover, together with the above-average temperatures and wind velocities accentuated the drought conditions surrounding winter crops. Fall grains, alfalfa, and grass plantings are very dry and the soil is badly cracked. A 4-inch snow which fell on the last day of the month should afford some relief.

Although the subsoil is frozen, the surface soil is loose and tillable. At various times throughout the month local farmers were out with disk and harrow working down the fall-plowed ground. On days of high wind velocity some soil drifting took place in "blow" areas, but to date no crop injury from soil blowing has been reported locally. The heavy thistle growth made during the summer on waste lands adjoining some of the station fields has been moving this month, and some time has been taken to burn the accumulations lodged along the station fences.

Maximum temperature, 57°; minimum, -11°; precipitation, 0.25 inch.

SHERIDAN:

The past month was one of the warmest recorded on the station for January. A temperature as low as zero was reached only once, and there was no temperature below zero during the month. The mean temperature for the entire month was about 8° above the average. Precipitation was only about one-third the average for the month, and came only in very small amounts at a time. The ground was bare the greater part of the month, although a light snow on the last day of the month left a cover of about an inch at the end. Wind movement was about average, although high wind at times caused some soil blowing in spots.

In spite of the high average temperature and the lack of any extremely low temperatures, ice froze to a greater thickness than in some winters that apparently were considerably colder and remained in good condition throughout the month.

No field work was possible at any time during the month.

Maximum temperature, 60°; minimum, 0°; precipitation, 0.23 inch.

DICKINSON:

Mild, pleasant weather lasted most of the month. This was the mildest January since 1931. Mean temperature of 20.8° was 10° above normal, 5° above January 1938 and 27° above the same month in 1937. The maximum temperature was above zero every day and there were only 6 nights when the minimum was below zero, with a low of -13° on the 15th and 17th.

Precipitation amounted to 0.38 inch up to the morning of the 31st. Snow fell throughout the day of the 31st amounting to 6 inches, with precipitation of 0.35 inch. Open fields were nearly bare of snow about half the time and covered lightly the rest of the month up until the close. Stubble fields and grasslands containing the seasons growth held more snow.

Livestock grazed in the fields or on the range all month, remained in good condition, and required little or no feeding.

No soil blowing occurred during the month.

Maximum temperature, 50°; minimum, -13°;
precipitation, 0.38 inch, plus 0.35 inch.

MANDAN:

The temperatures for January were mild throughout. There were only 7 days with minimums below zero, no days with the maximum below zero.

There was little wind or snow until the day and night of the 31st. About 5 inches of snow fell on the last day with 0.50 of precipitation. A blizzard is now in progress with snow falling and blowing. Highways are already blocked in spots, and the chances are all roads will be blocked by morning.

January maximum 47°; minimum, -11°; precipitation, 0.67 inch; Snowfall, 7.2 inches.

Arboriculture - Data collected during the year 1938 have given some indication of its being a possible turning point in the heavy killing back and losses which have been definitely associated with growing trees on farms during the past few years. In the Newsletter for December 1937 a brief summary was given of growth and survival of several species at the end of the first 5-year period, for the years 1925-33, inclusive. This showed that from 1929 on, progressive decreases in both average height and survival occurred each year, with the data for 1933 plantings being the lowest ever recorded for a growing period of 5 years. Data collected in 1938 for 5-year plantings show the downward trend has stopped, the averages for 1934 plantings being equal to, or slightly above, those of 1933 plantings at the end of five years. Average growth and survival in 1938 of 20-, 15-, and 10-year plantings, show increases for all species over the data collected in 1937 for plantings of the same age. Similarly the data taken in the various tree tests on the Mandan station show that very few losses occurred and average growth shows considerable increase over the previous year, as compared with decreases in growth and heavy losses in most species during the years 1933-37 inclusive. These increases are true for all species except the four species of ash which continued to kill back during the year. These four species were the last to show severe injury from the continued droughts, and now are the slowest to show evidences of recovery. An average survival of 81 percent was obtained with the deciduous species set out in 1938, and an average survival of 36 percent with coniferous species. Insect damage was extremely heavy on young trees during the past summer, which may result in further losses during the present winter.

ARCHER:

During January the temperatures were rather mild, the wind velocity was less than usual, and the precipitation was more than average. A peculiar feature of the weather was a gentle rain, totaling 0.34 inch, during the afternoon of January 8. This was followed by snow. The total precipitation of the storm was 0.46 inch. The snow served as a protection for the winter cereals until the middle of the month. During the last half of the month the winter cereals have been unprotected and the fall growth has been frozen, however, short green leaves have been produced. Reports indicate that the winter cereals generally are in good condition in this section.

Range and stored feeds are plentiful, and livestock generally are in good condition.

Director W. L. Quayle of the University of Wyoming; Lorin T. Oldroyd, Director of Experiment Station of the University of Alaska; and Dale E. Harper, L. B. Murray and C. S. Llewellyn of the Soil Conservation Service, visited the station during the month.

Maximum temperature, 52°; minimum, 4°; precipitation, 0.51 inch.

NORTH PLATTE:

January was characterized by generally mild, open weather and relatively few days of moderate to high winds. The minimum temperature of 3° occurred on the 15th. The maximum was 61° on the 2nd. Precipitation as recorded by the North Platte office of the Weather Bureau amounted to 0.70 inch and came in the form of three snow storms. The first two fell with very little wind and were of some value to winter wheat. The condition of the winter wheat in this immediate vicinity has improved slightly but is still quite precarious due to the lack of root development.

AKRON:

Precipitation in January was nearly four times the normal. A gentle, drizzling rain fell all day January 7 and turned to snow late that night. Another light snow fell evenly the last few days but was piled into ditches and behind obstructions. There was a trace of dirt in this piled snow attesting to the high velocity of the wind. Outside of a few such short bursts, the wind movement was low.

Pigs on feed, continue to make satisfactory progress toward fat, finished condition. The mixed Coes and corn lot shows much better in direct visual comparison and in weighed gains. The straight Coes and Corn lots appear to be waging a close race for supremacy. Mixtures of corn and proso, and of corn and barley, heretofore, did not show the happy combination that the Coes and corn promises to show in this test. Feeders' Day covering this experiment has been set for February 17.

The winter precipitation thus far appears to have been ample to nurture a precarious winter wheat crop along.

Maximum temperature, 55°; minimum, 9°; precipitation, 1.00 inch.

COLBY:

January was an open and pleasant month. The temperatures were considerably above normal, among the highest on record. The wind velocity averaged above normal, but there were no very windy days. It was dusty with some soil blowing on the 4th and 25th.

The precipitation was slightly above normal, but the moisture did not penetrate down to the roots of the wheat. The precipitation came in the form of a gentle rain which fell nearly all day the 8th and light snows on the 14th, 22nd and 23rd. The snow drifted some, but there were no even moderately bad storms.

Most of the time the ground was not frozen. Wheat fields have a greenish cast, indicating that the wheat is making slight growth. There are still no brace roots. They are started, however. Some are just buds and others are an inch or two long, depending on the depth to which moisture has penetrated. These may be making use of the surface moisture before it all evaporates.

Maximum temperature, 69°; minimum, 5°; precipitation, 0.34 inch; snow, 0.7 inch.

HAYS:

The month of January was generally mild with no zero temperatures. During only four days was there sufficient wind to make the sky very dusty, and only two days when visibility for a few hours was reduced to 2 miles. The windy days were the 16th, 25th, 27th and 31st. About 5 o'clock in the afternoon of the 31st a heavy cloud of reddish colored dust passed from the south high and rapidly over this vicinity. The storm seemed to have about exhausted itself by the time it reached Hays, and in a short time all was again calm.

Winter wheat still clings to life despite the scarcity of moisture. A little of the wheat has even made some growth, but most of it is at a stand-still. The top growth is brown. It looks much the same as it did a month ago.

During the month the Experiment Station has had constructed under contract a new steel water tower and tank to replace the concrete tower and tank that has served the station with water for years but is no longer dependable because of deterioration. The station sewer system has been connected with the Hays city sewage disposal plant. This was a WPA project. A small septic tank has been used by the Experiment Station for many years.

Maximum temperature, 74°; minimum, 10°; precipitation, 0.48 inch. At present there is a thin layer of ice on the creek, but no ice in the soil.

TUCUMCARI:

January was a month of extremes and of unusual climatic conditions.

Rain totaling 1.10 inches the night of the 7th was greater than any previous single-day precipitation on record in January. The total for the month, 1.25 inches, has been exceeded in only one year.

Wind velocity was the third highest of any January on record.

The mean temperature for the month, 40°, was only 2° above the long-time mean, but the lowest recorded was 20°. Records show no previous January with so high a minimum reading.

Precipitation, in the form of snow, was much higher in nearly all directions than in this vicinity. Roads west of Tucumcari have been blocked for days at a time by high drifts. Moisture conditions should be favorable over a vast section of the Southwest. Wheat on the plains south of Tucumcari is improving. Crop land on the station shows complete penetration through the second foot and partly through the third. Bare row crop land is in blow condition, but cultural work to minimize wind damage can be readily performed.

Rabbit extermination continued during the month. A total kill of 859 for the past 2½ months is much greater than the usual winter kill. No doubt a considerable number which were killed by poison were not found.

Increase in rabbit population in this part of the State is causing general concern. Two drives within 10 miles of the station have reduced the number of rabbits by some 4,500, it is reported. Last Sunday the "high man" accounted for 148, while one woman in the drive killed 69.

DALHART:

A precipitation of 2.04 inches, all in slow rains except 0.03 inch in the form of snow, was nearly all absorbed by the soil. This makes the soil moisture conditions better than at any similar period of the year since 1931. Mild weather characterized the month, the minimum temperatures being moderate. The lowest minimum temperature for the month was 18°. The average mean temperature for the month was only slightly higher than average. Wind velocities seemed moderate throughout the month, although there were only a few calm days. Dust was in the air some five or six days, the last day of the month being easily one of the 'worst' days for soil movement. This was the windiest January since 1929.

Winter rye continues to grow vigorously. Winter wheat also has a good thrifty appearance. The winter wheat and some of the winter rye plots continue to be grazed closely by rabbits. Soil samples on winter wheat plots the middle of the month show the surface 4 feet filled with moisture to capacity on all preparations.

Visitors during the month included C. J. Whitfield, J. L. Boatman, D. E. Stephens, J. E. Smith, H. E. Tower, and Fred Sykes from SCS, and R. S. Towle, E. F. Chilcott, D. A. Savage, and C. E. Leighty from this Bureau.

Maximum temperature, 64°; minimum, 18°; precipitation, 2.04 inches - a new high for the month.

BIG SPRING:

Rather favorable weather conditions have prevailed during the month of January, no high winds, moderate temperatures, and some very good rains. Precipitation during the month was higher than any time during the past 39 years for the same period. A total of 3.71 inches was received as compared with a normal of 0.43 inch. These rains fell slowly over a 4-day period, so there was no erosion or run-off. The rains this month were the

first ones that penetrated the soil more than 6 inches since last July.

Soil moisture conditions are better now than they have been in several years at this time, and the soil is in excellent condition for farmers to start listing and plowing. The wheat plots have brightened up considerably, and with some warm weather should start growing again.

Station work has consisted of hauling and stacking bundle Hegari and Sumac, plowing and listing increase fields, and plowing the field for the cooperative work.

Maximum temperature, 73°; minimum, 25°; precipitation, 2.71 inches.

LAWTON:

The January rainfall of 2.65 inches, well distributed throughout the month, provided moisture in the first one and one-half to two feet of soil that was highly beneficial to small grains. Mild temperatures continued throughout the month, ranging from a minimum of 22° on the 1st to 74° on the 3rd with a monthly mean of 6.4° above normal.

Winter oats and winter barley responded to the favorable weather with some growth, and both crops appeared to be in good condition at the end of January.

Wheat still presents a very poor prospect. There has been some development of the root system but top growth remains negligible. Farmers refer to it as "dog hair", and that is a fairly good comparison in many respects.

The first seeding of oats was made January 26 in the rate and date test on excellent seed beds. Present indications point to more than the usual amount of early February seeding on the surrounding farms. The mellow surface soil is well supplied with surface moisture, and temperatures are very favorable for such work.

WOODWARD:

The month of January closed with a new high precipitation record of 2.84 inches. This exceeds anything on record dating back to 1874, and may be compared to the 25-year average of 0.63 inch. Temperatures were mild. Freezing temperatures were recorded most days but the mean minimum was 30° and minimum was 18°. The mean maximum was 50° and maximum was 74°. Winds were higher than normal. All plots without crops or some type of cover were cultivated to prevent soil erosion. Blowing was noted on farms that have a poor stand of wheat and on fields seeded late which do not have growth sufficient to protect the land.

Wheat seeded on late dates and at normal time on poorly prepared seed beds has begun emerging. Temperature is the limiting factor in growth at present.

A cement pump house has been constructed behind the dam and a centrifugal pump installed for irrigation purposes.

Work on the station in general consisted of plowing plots, manuring plots, cultivating plots to prevent blowing; constructing pump house, pump, and pipe lines; pulling dirt from under tree row, by the road north of the station, back into the road; and planting trees.

A. T. Chisholm of Texas Experiment Station, joined the staff of Woodward Station on January 4th to study methods of applying hot water emasculation to pasture grasses.

Station visitors were Dr. C. E. Leighty, Head of Dry Land Agriculture; P. V. Cardon, Head of Forage Crops and Diseases; D. E. Stephens, Liason Officer between Soil Conservation Service and various Bureaus of the Department; James E. Smith, Jr., Regional Nurseryman of Soil Conservation Service of Amarillo, Texas; and Wayne Austin, Regional Nurseryman of Soil Conservation Service, Rapid City, S. Dak.

Maximum temperature, 74°; minimum, 18°; precipitation, 2.84 inches.

PENDLETON:

Temperatures during the month of January were above average, the lowest temperature recorded during the month was 20°. The only snowfall during January occurred on the 31st, with about 2¼ inches. Conditions for field work were favorable in the drier and sandier sections, and considerable plowing and seeding was done. Some plowing was done on the station during the month. Fall sown wheat made some growth and has a fine dark green color. Winter wheat is in excellent condition throughout the Columbia River Basin. Grasses in the nursery have made considerable growth. Lambing operations have started on some of the sheep ranches. Cattle in this section are in excellent condition.

Maximum temperature, 66°; minimum, 20°; precipitation, 1.29 inches; precipitation since Sept. 1, 1938, 6.19 inches - normal 6.88 inches.

--ooOOOoo--